



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 13, 2015

LICENSEE: DTE Electric Company

FACILITY: Fermi 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON
DECEMBER 15, 2014, BETWEEN THE U.S. NUCLEAR REGULATORY
COMMISSION AND DTE ELECTRIC COMPANY, CONCERNING REQUESTS
FOR ADDITIONAL INFORMATION, SET 17 PERTAINING TO THE FERMI 2
LICENSE RENEWAL APPLICATION (TAC NO. MF4222)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of DTE Electric Company (DTE or the applicant) held a telephone conference call on December 15, 2014, to discuss and clarify the staff's draft requests for additional information (DRAIs) B.1.28-1, B.1.28-2, and B.1.28-3 concerning the Fermi 2 license renewal application. The telephone conference call was useful in clarifying the intent of the staff's DRAIs.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the DRAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Daneira Meléndez-Colón, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures:

1. List of Participants
2. Summary of Telephone Conference Call

cc w/encls: Listserv

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TELEPHONE CONFERENCE CALL
FERMI 2
LICENSE RENEWAL APPLICATION

LIST OF PARTICIPANTS
DECEMBER 15, 2014

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SUMMARY OF TELEPHONE CONFERENCE CALL
FERMI 2
LICENSE RENEWAL APPLICATION
DECEMBER 15, 2014

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of DTE Electric Company (DTE or the applicant) held a telephone conference call on December 15, 2014, to discuss and clarify the following draft requests for additional information (DRAIs) concerning the Fermi 2 license renewal application (LRA).

DRAI B.1.28-1

Background:

Section 54.21(a)(3) of Title 10 of the *Code of Federal Regulations* (10 CFR) requires the applicant to demonstrate that the effects of aging for structures and components will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation. As described in Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (SRP-LR), an applicant may demonstrate compliance with 10 CFR 54.21(a)(3) by referencing the Generic Aging Lessons Learned (GALL) Report and when evaluation of the matter in the GALL Report applies to the plant.

The applicant stated that LRA Aging Management Program (AMP) B.1.28, "Non-EQ Cable Connections," is a new program that is consistent with GALL Report AMP XI.E6, "Electrical Cable Connections Not Subject To 10 CFR 50.49 Environmental Qualification Requirements."

The "detection of aging effects" program element of the applicant's AMP basis document, FERMI-RPT-12-LRD04, states that the inspection methods may include thermography, contact resistance testing or other appropriate quantitative methods.

Other appropriate quantitative methods can include bolted joint connection torque checks per existing plant procedures. The applicant has referenced the document EPRI TR-104213, "Bolted Joint Maintenance & Applications Guide."

Issue:

During the audit, the applicant provided plant maintenance procedures to be used for checking bolted connection tightness. The staff noted that there is an inconsistency between these procedures and guidelines set forth by EPRI TR-104213, "Bolted Joint Maintenance & Applications Guide," concerning re-torquing of electrical connections. These guidelines prohibit re-torquing, whereas the applicant's procedures allow such practice.

Request:

Explain the technical basis for re-torquing per the plant procedures and provide a justification for the apparent discrepancy with EPRI TR-104213, "Bolted Joint Maintenance & Applications Guide."

Discussion:

The applicant stated that there seems to be a mismatch between the Background and Request sections of draft RAI B.1.28-1. The staff provided clarification related to its request in the draft RAI. The staff stated that it will revise RAI B.1.28-1 to clarify the Background and Request sections.

The applicant understands the staff's concerns and will provide a response to the RAI.

This request will be revised and sent as a formal RAI.

DRAI B.1.28-2

Background:

Section 54.21(a)(3) of 10 CFR requires the applicant to demonstrate that the effects of aging for structures and components will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation. As described in SRP-LR, an applicant may demonstrate compliance with 10 CFR 54.21(a)(3) by referencing the GALL Report and when evaluation of the matter in the GALL Report applies to the plant.

The applicant stated that LRA AMP B.1.28, "Non-EQ Cable Connections," is a new program that is consistent with GALL Report AMP XI.E6, "Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements."

The AC (alternating current) power recovery path at Fermi 2 includes a 3000 amp and a 1200 amp tap box located in the Division 2, 4160 V switchgear room as well as three similar tap boxes in the Division 1 switchgear room. There are electrical bolted connections inside these boxes that are subject to ohmic heating and electrical transients aging mechanisms which can contribute to increased resistance of these connections as stated in the "parameters monitored/inspected" program element of GALL Report AMP XI.E6. These connections are within the scope of license renewal according to 10 CFR 54.4(a)(3).

During the audit, the staff requested reviewing the operating experience associated with these devices and records of any maintenance activities. The applicant informed the staff that no such documents were found and there has been no reported operating experience regarding these connections since these tap boxes are not in the applicant's preventive maintenance program.

Issue:

GALL Report AMP XI.E6, “detection of aging effects” program element, allows the applicant to take credit for the existing maintenance practices. It states, “The one-time test provides additional confirmation to support industry operating experience that shows that electrical connections have not experienced a high degree of failures, and that existing installation and maintenance practices are effective.” Given that these particular devices have not been inspected or maintained, it is not clear that a one-time test under LRA AMP B.1.28, performed on a sampling basis, is adequate to ensure that aging of these cable connections will be addressed. Depending on the sampling methodology adopted by the applicant, these devices may never be tested or inspected for aging effects. Sample selection methodology and the technical basis have not been developed by the applicant and were not available for the staff to review at the time of the audit.

Request:

Justify that a one-time test, on a sampling basis, per LRA AMP B.1.28, is adequate to ensure that aging of these in-scope connections is properly managed, given that they have never been inspected nor maintained. Explain if a representative number of these connections will be included in the overall population of the tested devices according to the applicant’s sampling methodology.

Discussion:

The staff provided clarification related to its request in draft RAI B.1.28-2.

The applicant stated that both draft RAI B.1.28-2 and draft RAI B.1.28-3 address sampling methodology. The staff stated that it will combine both requests into one RAI.

The applicant understands the staff’s concerns and will provide a response to the revised RAI.

This request will be revised to incorporate the staff’s concerns described in draft RAI B.1.28-3 and will be sent as a formal RAI title “RAI B.1.28-2.”

DRAI B.1.28-3

Background:

Section 54.21(a)(3) of 10 CFR requires the applicant to demonstrate that the effects of aging for structures and components will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation. As described in SRP-LR, an applicant may demonstrate compliance with 10 CFR 54.21(a)(3) by referencing the GALL Report and when evaluation of the matter in the GALL Report applies to the plant.

Factors listed for consideration for sampling per GALL Report AMP XI.E6, "Electrical Cable Connections not Subject to 10 CFR 50.49 Environmental Qualification Requirements," include; voltage level (medium and low voltage), circuit loading (high load), connection type and location (high temperature, high humidity, vibration). The technical basis for sample selection should be documented according to this AMP.

The applicant stated that LRA AMP B.1.28, "Non-EQ Cable Connections," is a new program that is consistent with GALL Report AMP XI.E6, "Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements."

The "detection of aging effects" program element of the LRA AMP basis document states that, "the technical basis for the sample selected will be documented." Sample selection methodology and the technical basis have not been developed by the applicant and were not available for the staff to review at the time of the audit.

Issue:

It is not clear as to whether the applicant's sample selection will include various connector types as stated in the GALL Report. Since the technical basis for sample selection was not available, the staff could not review the applicant's methodology for including relevant factors such as; voltage level (medium and low voltage), circuit loading (high load), connection type and location (high temperature, high humidity, vibration).

Request:

Provide the technical basis for the sample selection to demonstrate consistency with the GALL Report and explain how relevant factors, including; voltage level (medium and low voltage), circuit loading (high load), connection type and location (high temperature, high humidity, vibration) and various types of connections will be addressed in the sampling methodology.

Discussion:

The staff provided clarification related to its request in draft RAI B.1.28-3.

This request will be combined with draft RAI B.1.28-2.

This RAI will not be issued.